Annual Report

Department of Fisheries and Labour

Prince Edward Island

for the year ended December 31st

1984

PRODUCTION LINE AT P.E.I. SEAFOOD PROCESSING PLANT

85-4121/

TO HIS HONOUR

THE HONOURABLE J. A. DOIRON,

Lieutenant-Governor of the Province of Prince Edward Island

May It Please Your Honour:

I have the honour to submit herewith the Report of the Department of Fisheries and Labour for the period ended December 31, 1984.

I have the honour to be, Sir,

Your obedient servant,

HONOURABLE RODDY B. PRATT

Minister

TO THE HONOURABLE RODDY B. PRATT

MINISTER OF FISHERIES

Charlottetown, P.E.I.

Sir:

I have the honour to submit herewith the Report of the Prince Edward Island Department of Fisheries and Labour for the period ended December 31, 1984.

Respectfully submitted,

HARRY O'CONNELL

Deputy Minister

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FOREWORD

ANNUAL REPORT

The character of the Atlantic Canada fishing industry has been significantly altered following the financial restructuring of the region's larger fish processing companies. The emergence of two large restructured corporate bodies — one in Newfoundland and one in Nova Scotia will have a major impact on the management, production and marketing of Atlantic Canada's fish resources for many years to come. In their first year of operation, the future financial health of these two companies was still not apparent.

On Prince Edward Island, where no financial restructuring occurred, the industry settled back to a landed value of $37 million increased by 7% from 1982 and stabilizing down from the over 25% growth rate experienced in 1983. As a result of both lower lobster prices and landings, $6 million was extracted from the dominant species which contributes to the value of our industry.

The P.E.I. Department of Fisheries and Labour are jointly reporting the 1984 activities in this Annual Report. The two divisions of Fisheries and Labour have come together into one department for administration. Mr. L. W. (Ken) Brammer retired as Deputy Ministre after long service with government and Mr. Roger Kennedy has been appointed Assistant Deputy Minister responsible for the Labour Division.

Our labour force continues to grow at approximately 56,000 with almost 43% being female. It is noteworthy that wage settlements in Canada increased by 3.1% for the private sector and 3% for the public sector in 1984. P.E.I. is now honored to have the longest strike free period recorded over two years.

The Department devoted much attention during the past year to development efforts on behalf of the fishing industry. A new Economic Development Agreement was signed between the Federal Department of Fisheries and Oceans and the Department calling for

the expenditure of $10 million in new programming over the next five years. The Province's share of $2.5 million will reflect a thrust related to enhancing the quality of P.E.I. fish at both the fisherman level and the processing plant. In preparation for the impending quality grading system at both dockside and end-of-line, programs have been mounted to provide incentives to reward better quality performance. New products and increased utilization of our existing products will be promoted to add value to our industry and thereby create jobs for our citizens.

1984 also saw Prince Edward Island make its long sought after debut into the Gulf Snow Crab Fishery. Sixteen crab permits were issued in the fall by the new Federal Minister, Hon. John Fraser and marked the end of a ten year absence of P.E.I. fishermen from this fishery. As well, a private company has been formed in late 1984 to undertake the upgrading of Irish Moss Products with a view to adding significant value to both our western Irish moss and Eastern mixture.

The total budget for the Department of Fisheries and Labour in 1984 was $2,544,500 and enabled the Department to continue its major efforts for extension processing, production, marketing and labour. The details of each of these areas are enclosed herein.

Now that a large part of the Atlantic coast restructuring has taken place, it is possible that stabilization will emerge within the industry. On P.E.I. it is the Department's hope that through the co-operative efforts of government and the industry, we can expand the value of our fish products, ensure better quality, leading to increased market penetration.

I would like to acknowledge the support the Department has received from the various sectors of the fishing industry as well as the labour community, for their input and guidance and my sincere thanks to the substantial efforts of the staff of both the Labour Division and Fisheries Division.

ADMINISTRATION

Glenda Stewart

The approved budget for the Department of Labour for the fiscal year April 1, 1983 to March 31, 1984 was $6,494,700. A special warrant was issued to the Department of Labour for manpower training in the amount of $96,000.

In November 1983, following the reorganization of the Department of Labour and the Department of Fisheries and Industry, a special warrant was issued authorizing a payment of $1,193,622.07 to the Department of Fisheries and Labour.

Special warrants were also issued as follows:

Financial Assistance (Leoville Industries) $30,000 by EC 1011/83.

Technology Improvement, $105,000 for fish unloading systems at Tignish, Souris and Malpeque, by EC 208/84.

Total Department revenue for the 1983/84 fiscal year was $1,913,356.07.

The programs of the Department were carried out by thirty-four full time staff during 1984. In addition, twenty-eight seasonal employees were on staff during May to October.

See statement of Department Expenditures on page 78.

FISHERIES DIVISION

PRINCE EDWARD ISLAND FISHERIES

The year 1984 has been steady in most areas of the P. E. I. Fishery although landings decreased by 2,908,569 lbs. compared to the 1983 recorded figures. Preliminary figures show 1984 landings of 113,530,234 pounds. The total landed value of all fishery products reached $37.8 million, a decrease of 14.6% from the 1983 value.

The industry presently employs 5,013 people, approximately 3,013 in fishing and 2,000 in processing. Many more are employed in industries which support the fishery such as outfitting and vessel construction. It is estimated that almost $100 million is contributed annually to the Prince Edward Island economy from the primary and secondary sectors and support industries.

Total groundfish landings in 1984 decreased to 42 million pounds representing a 7.6% decrease from 1983. The value decreased by 8.7% for a total of $4.5 million. With respect to the dominant groundfish species an increase has been recorded in redfish while decreases have occurred in landings of cod and hake. Flounder landings remained on par with those of 1983, with landings of 5.4 million pounds. Redfish landings, from the offshore fleet sector, increased by 5.2% raising the landings from 15.8 million pounds in 1983 to 16.7 million pounds in 1984. The value of these landings also increased by 5.2% showing a landed value of $1.8 million. Cod and hake landings showed declines with a decrease of 24.7% and 13.6% respectively.

Landings of pelagic and esturial fish decreased to 15.6 million pounds, a decline from 20.7 million pounds in 1983. The value decreased by 7.9% giving a total of $3.3 million. A major factor for the decrease in landings was due to the herring fishery which decreased by 27.9% dropping from 14.1 million pounds in 1983 to 10.2 million pounds in 1984. The value of these landings also decreased by 27.9% to give a value of $1.0 million. Silverside and smelt landings increased by 49.3% and 7.2% respectively while the value of silverside landings more than doubled and the value of smelt landings

increased by 42.8%. Mackerel showed a 18.3% decline both in landings and value. Eel landings declined from 447,938 lbs. in 1983 to 289,302 lbs. in 1984, showing a decline of 35.4%. The value of eel landings also dropped significantly by 30.9%. Although tuna landings decreased by 47.7%, their value showed a remarkable increase of 22.2% reaching $1.4 million.

Total mollusc and crustacean landings declined slightly for 1984 showing a decrease from 21.9 million lbs. in 1983 to 21.6 million lbs. in 1984. Landed value decreased by 17.6% dropping the value from $34.4 million in 1983 to $28.3 million in 1984. The lobster fishery experienced declines in landings from 1983 but there was improvement compared to 1982. Landings declined by 11.8% compared to 1983, giving a total of 13.6 million pounds. With respect to 1982's recorded figure, 1984 had an increase of 12%. The value of the 1984 landings decreased by 20.4% from 1983 and increased by 2.4% over 1982. Oyster landings for 1984 increased by 39.1% while their value increased by 57.5%. Bar clams increased by 691,476 lbs. in 1984 showing a 73.2% increase over 1983's figures in both landings and value. Landings of softshell clams increased slightly by 6.7% while their value increased by 60.2%. Mussel landings and value both increased by 59.6% while scallop landings and value declined by 48.5%. Quahaugs had a decrease in landings of 138,825 lbs. and a decrease in value of $27,400.

Seaplant landings increased by 6 million pounds to 34.7 million pounds for 1984 with a landed value increase of 21.0% giving a total of $1.7 million.

The landed weight and value for fish and seaplants in P.E.I. in 1984 with comparative figures for 1983 are as follows:

P.E.I. FISH LANDINGS AND VALUE 1983/84

SPECIES	1983 POUNDS	1983 $000 VALUE	1984* POUNDS	1984* $000 VALUE
GROUNDFISH				
Cod	14,977,695	$1,872.0	11,289,067	$1,411.1
Hake	7,737,113	464.0	6,686,047	401.1
Flounder	5,408,230	771.0	5,402,798	769.9
Redfish	15,888,520	1,747.0	16,713,972	1,838.5
Haddock	—	—	18,854	3.2
Halibut	22,267	18.0	26,533	20.5
Pollock	—	—	26,980	1.9
Tomcod	10,680	0.5	543	--
F. Meal	994,158	10.0	1,478,400	14.8
Catfish	—	—	600	—
TOTAL	45,038,665	4,882.5	41,645,794	4,461.0
PELAGIC				
Tuna	754,236	$1,131.0	394,913	$1,382.2
Herring	14,112,165	1,411.0	10,178,190	1,017.8
Mackerel	4,573,653	549.0	3,740,390	448.8
Smelts	499,693	75.0	535,692	107.1
Alewives	122,439	12.0	146,751	14.7
Eels	447,938	314.0	289,302	216.9
Salmon	2,476	6.0	333	1.2
Trout	11,550	23.0	265,218	39.8
Silversides	177,642	18.0	16,500	33.0
Other	34,585	0.3	13,430	0.7
TOTAL	20,736,377	$3,539.3	15,580,719	$3,262.2
SHELLFISH				
S. S. Clams	577,219	$ 173.0	615,982	$ 277.2
Bar Clams	944,782	189.0	1,636,258	327.3
Quahaugs	1,118,140	615.0	979,315	587.6
Mussels	357,771	233.0	572,079	371.9
Oysters	2,434,185	1,290.0	3,385,318	2,031.2
Lobsters	15,451,520	29,056.0	13,635,305	23,137.0
Scallops	422,610	2,536.0	222,452	1,334.7
O. Quahaugs	—	—	25,251	2.5
Snow Crab	417,138	250.0	406,443	243.9
Rock Crab	231,231	23.0	100,892	10.1
TOTAL	21,954,596	$34,365.0	21,579,295	$28,323.4
TOTAL FISH	87,729,638	$42,786.8	78,805,808	$36,046.6
MARINE PLANTS	28,709,165	$ 1,435.0	34,724,426	$ 1,736.2
TOTAL FISHERY PRODUCTS	116,438,803	44,221.8	113,530,234	$37,782.8

* Preliminary

The following table shows the comparisons for P.E.I.'s landings and values, by species, groups, over the period 1960 - 1984.

Prince Edward Island, 1960 - 1984

Landings, Quantity and Values by Species

(In thousands of lbs. and thousands of dollars)

		Groundfish	Pelagic & Estuarial	Molluses & Crustaceans	Marine Plants	Seafish Total Excluding Marine Plants		Total
1960	Q.	23,258	5,731	13,294	12,598	42,283	Q.	54,781
	V.	650	243	3,854	161	4,447	V.	4,639
1961	Q.	19,873	3,715	13,076	19,039	36,664	Q.	55,703
	V.	546	155	3,472	316	4,173	V.	4,489
1962	Q.	21,888	4,303	11,439	17,341	37,620	Q.	54,971
	V.	680	150	3,531	288	4,361	V.	4,649
1963	Q.	21,077	6,515	10,872	10,559	38,464	Q.	49,023
	V.	675	236	3,551	163	4,462	V.	4,625
1964	Q.	21,449	8,177	11,388	7,123	41,011	Q.	48,139
	V.	693	288	4,671	108	5,625	V.	5,750
1965	Q.	22,710	11,464	12,067	17,140	46,241	Q.	63,381
	V.	779	267	5,779	258	6,825	V.	7,083
1966	Q.	34,601	12,815	10,705	26,711	58,171	Q.	84,882
	V.	1,303	337	4,358	506	5,998	V.	6,504
1967	Q.	25,816	7,248	11,462	47,997	44,526	Q.	92,503
	V.	912	224	5,831	1,220	6,967	V.	8,187
1968	Q.	23,110	11,329	12,556	53,656	40,995	Q.	100,651
	V.	789	359	6,251	1,168	7,399	V.	8,567
1969	Q.	25,557	12,345	11,134	51,788	40,037	Q.	100,854
	V.	984	311	6,271	1,209	7,566	V.	8,777
1970	Q.	33,668	54,853	11,837	67,004	100,358	Q.	167,360
	V.	1,353	928	7,298	1,558	9,579	V.	11,167
1971	Q.	39,440	47,012	11,047	50,764	97,499	Q.	148,263
	V.	1,635	968	6,822	937	9,425	V.	10,361
1972	Q.	37,650	9,711	9,226	30,028	56,587	Q.	86,615
	V.	1,693	522	7,293	581	9,508	V.	10,089
1973	Q.	38,510	14,014	10,325	49,123	62,850	Q.	111,973
	V.	2,132	899	8,209	1,172	11,241	V.	12,414
1974	Q.	17,083	9,667	8,830	76,036	35,661	Q.	111,617
	V.	1,087	788	6,995	3,106	8,870	V.	11,977
1975	Q.	15,032	5,529	11,352	40,318	31,914	Q.	72,232
	V.	1,058	670	9,078	1,610	10,806	V.	12,416
1976	Q.	14,972	6,996	11,263	28,843	33,233	Q.	62,075
	V.	1,091	1,077	9,673	878	11,841	V.	12,719
1977	Q.	22,454	5,548	11,849	30,116	39,851	Q.	69,967
	V.	2,137	1,156	10,786	1,085	14,078	V.	15,184
1978	Q.	28,248	8,850	15,307	31,709	52,905	Q.	84,614
	V.	3,154	1,605	17,928	1,873	22,697	V.	24,560
1979	Q.	33,995	10,581	16,716	42,943	61,273	Q.	104,216
	V.	4,300	1,898	20,259	2,689	26,457	V.	29,146
1980	Q.	42,252	12,238	16,475	35,225	70,966	Q.	106,191
	V.	4,672	2,302	18,037	1,781	25,011	V.	26,792
1981	Q.	45,144	14,035	17,568	37,485	76,747	Q.	114,231
	V.	5,413	2,309	22,258	1,874	29,982	V.	31,856
1982	Q.	42,223	18,046	18,672	34,043	78,942	Q.	112,986
	V.	4,823	2,524	26,379	1,702	33,726	V.	35,428
1983	Q.	45,039	20,736	21,955	28,709	87,730	Q.	116,439
	V.	4,883	3,539	34,365	1,435	42,787	V.	44,222
1984	Q.	41,646	15,581	21,579	34,724	78,806	Q.	113,530
	V.	4,461	3,262	28,323	1,736	36,046	V.	37,782

EXTENSION DIVISION

LEWIE CREED, FRIEND HERRING and
IRWIN JUDSON

The role of the Extension Division is to keep the fishing industry well informed and to provide feedback from the industry which can be used by the Department to develop sound policies and programs. This work includes information programs, fisheries promotion, assistance to fishermen and their organizations, provision of training and technical upgrading, assistance in planning port maintenance and development and encouragement and technical assistance to the aquaculture industry.

Three staff members provided service to the fishing industry through personal contact in assigned areas of East, Central and Western ports in the province.

The staff performed a number of functions in the field including attendance at port committee meetings and fishermen's information meetings, meetings and advice for industry associations and developing and progressing the individual business enterprises of the fishermen. The port meetings and liaison with port committees are used to develop and progress port needs and plans and require continual follow-up and interaction with a number of Federal Departments and Agencies concerned with the fishery. This extension service in the various areas of the Province served to keep the Department well informed of activities in the many aspects of the fishery and provided a presence for the Department in the fishing communities.

The staff members of the Extension Division were also responsible for administering and delivering the following programs during 1984.

INFORMATION

A number of information programs were organized and carried out by the Extension Division during the year.

Radio Broadcasts

A weekly five minute radio broadcast covering fish prices and markets was produced by the Division during the period May 1, - November 30, 1984. The program was aired on radio stations, CFCY, CHTN and CJRW on Saturday evenings.

The fish price report was also aired on CBCT-FM each monday morning as part of the Island Report broadcast.

As a special service to fishermen, the Extension Division sponsored marine weather broadcasts on the three local radio stations during the peak fishing period of April to November. This service was designed to assist fishermen by providing up-to-date weather information which they could use to make decisions on their fishing operations.

Another feature was incorporated in the Marine Weather coverage again this year by making use of the commercial time at the radio stations to promote Island fish. A series of 22 different radio spots were prepared by the Extension Division and aired during commercial time with the Marine Weather. These ads promoted our fish barbecue program, lobster and sales of other fresh Island fish.

Booth Displays

Display booths were placed at major fairs and exhibitions held throughout P.E.I. during the summer months. The purpose of the displays was to increase and promote general awareness of the P.E.I. fishing industry and the role of the Department.

Two summer employees were responsible for assembling the display and supervising its operation at the various events. The display was placed at Bedeque Days, Tignish Irish Moss Festival, St. Lawrence Scallop Festival, Summerside Lobster Carnival, Northumberland Fisheries Festival, Tyne Valley Oyster Festival, Country Days and Old Home Week, Miminegash Days and the Kensington Harvest Festival.

Two events of special note were the St. Lawrence Scallop Festival where staff was involved in judging the scallop shucking competition and the Northumberland Fisheries Festival where the Department again sponsored the scallop shucking and fish filleting competitions.

Publications and Promotion

Due to the successful attendance of an Island group of tuna charterers at a Springfield, Mass. sports show in March; it was decided to develop promotional literature and visual aids for better advertising coverage and appeal. All Island vessel operators who received government approval after inspection from the Ship Safety Office of the Canadian Coast Guard were given colorful tourist/deep sea and tuna posters (12" x 18"). Both graphic and written information appears on this promotion which was on view at local tourist information centres, stores, service stations, and campgrounds.

The second segment of the program saw the development of a colored ¾" video casette showing the Island's salt water activities which are available to visitors and Islanders alike. Action scenes of jigging or deep sea fishing and tuna chartering highlight the 12-minute production which will be available for sports fishing promotions.

The P.E.I. Department of Fisheries and Labour jointly sponsored a Bluefin Tuna Angling Tournament with the P.E.I. Department of Finance and Tourism. The tournament which offered $2000 in prizes was open to charter boat captains at all P.E.I. fishing ports with prizes going to anglers landing the five largest fish on a 180 lb. test line. The tournament was a useful promotion for P.E.I. Tuna charter operators.

A second joint project with the Department of Finance and Tourism involved the cost sharing of four dories provided to the Northumberland Fisheries Festival. The dories are for use in the dory racing competitions at the Festival which attract special attention because winners in the junior and senior categories go on to Canadian and possibly international competition. Agreement was reached with Festival organizers that the dories would be made available to other commuities on P.E.I. hosting smilar activities.

A special promotion program of the Department was upgraded and expanded during 1984. In co-operation with the P.E.I. Market Development Centre an attractive, full colour, two-page insertion in the publication "This Week in P.E.I." was used to promote fresh P.E.I. seafood. The ad featured a color photo of Island seafood and a listing of 40 retail establishments on P.E.I. where fresh fish could be purchased.

The exposure received was quite extensive for both visitors and Islanders alike considering that the circulation of "This Week in P.E.I." was in excess of 200,000 copies. As well, an extra printing of the advertisement was purchased and used in conjunction with the "Out of the Sea and Over the Coals" program and other promotions of the Department.

In association with the fourth Annual Convention of the P.E.I. Fishermen's Association, the Extension Division presented a meal featuring P.E.I. Seafood products producted by the acquaculture industry. The meal consisted of fresh cultured P.E.I. mussels, and fresh rainbow trout. The meal provided wide exposure to these two excellent products from our expanding aquaculture industry.

During the 1984 Interchange on Canadian Studies at Three Oaks High School, several hundred students from across Canada and those of the participating school enjoyed the Fisheries display, promotional material and fisheries sessions, either organized or assisted by the Department. The fresh mussels presented for the National organizers and overseers led to provincial export demand. The conference was held from April 28 to May 5, 1984.

On March 15th and 16th, the first Marine Diesel and Electronics Show was held at the West Prince Centre, Elmsdale, when the Department assisted Mary Lou Rogers of Holland College to organize 25 exhibitors. Almost 400 fishermen and people interested in Marine equipment attended the show, which included survival rafts and suits, diesel engines, fishing gear and supplies, and fish handling containers. Plans are for an even bigger and better show in 1985.

As a component of the activities of the 25th Annual Premiers Conference held in Charlottetown, the Department carried out the responsibilities of arranging and hosting of a deep-sea fishing expedition from North Rustico. Three boats, "Silver Wave", "Samantha Marie", and Dougie B" were chartered for the use of the premiers and entourages.

The Extension Division continued the popular promotion button with the logo "Serve P.E.I. Fish — It's Catching" with 10,000 being distributed at booth displays and other functions during the year.

The Extension Division revised and updated a number of species information pamphlets on lobster, cod, scallop, softshell clams, mackerel and smelts.

A third printing of brochures providing details on four assistance programs of the Department was carried out. These brochures provided details on eligibility, amount of assistance provided and method of application for the Diesel Engine Conversion Program, Aquaculture Incentive Program, Fresh Fish Market Assistance Program and the Onboard Fish Handling Program.

A number of news releases on projects and programs of the Department were released to local news media and national and international trade journals. Promotional advertisements were also prepared for a number of local, regional and national publications.

TECHNICAL UPGRADING

Through the Technical Upgrading Program the Extension Division assisted fishermen and processors to travel outside P.E.I. to view new fishing gear and equipment, attend worthwhile industry meetings, or receive specialized training. During the year 1984 the following assistance was provided.

— Representatives of the mussel industry were assisted to travel to Nova Scotia, New Brunswick and Maine mussel growing areas on a fact-finding mission.

— Three representatives of the Island's tuna charter business were assisted to travel and attend the Springfield, Mass. Outdoors Northeastern Exhibition from March 20 to April 1. Attendance at this sports fishing show exceeded 100,000 enthusiastic spectators to view 320 booths dealing with equipment, camps, charters, etc., which are so appealing to millions of Americans.

— In co-operation with the Department of Fisheries and Oceans and the P.E.I. Fishermen's Association, a group of 24 Island fishermen and processors were assisted to travel to Boston and the New England States. The tour featured attendance at Fish Expo '84, a large fishing gear and marine show in

Boston, as well as visits to a number of Maine and Massachusetts fishing ports. The tour provided an excellent opportunity to develop contacts in the U.S.A. fishery and exchange information on a one-to-one basis.

— Four dockside grader trainers and their supervisor were assisted to visit a number of fish processors and buyers in Maine and Massachusetts who are purchasing fresh P.E.I. groundfish. The tour also featured a day and one half at Fish Expo in Boston and visits to the New England Fish Exchange in Boston and the New Bedford Fish Auction. The tour was quite successful and allowed the U.S. buyers to have personal contact with the dockside graders who were supervising the grading of fresh fish destined for the U.S. market. The graders were able to illustrate the quality standards employed on P.E.I. and stress the excellent quality of fish we can obtain from our day boat fishery.

Through the Technical Upgrading Program, the Department also gets involved in training for fishermen. In 1984, two Boat Refitting and Repair courses were offered at Westisle School and at Freeland Woodworking. These courses were organized by the Prince County Fishermen's Association and financially supported by the P.E.I. Department of Fisheries and Labour and the Canada Employment and Immigration Commission.

The Department, in co-operation with the Department of Fisheries and Oceans, also provided a three-week course on Dockside Grading which saw 30 employees of P.E.I. fish processing firms trained in the proper procedures for grading groundfish at the point of sale.

The Extension Division as a member of the Ad Hoc Committee on Fisheries Training worked closely with C.E.I.C., Department of Industry, and Holland College officials to assess training needs in the fishing industry. As a result, courses were offered in Nets and Gear and Retort Operation.

AQUACULTURE

The Department continued its support for the development of aquaculture particularly mussels and trout. Cultured mussel pro-

duction increased significantly in 1984 with landings up by 59.6% over 1983. Similar expansion can be expected in 1985 as seed layings in 1984 have increased.

This industry has become a significant employer on Prince Edward Island as it has employed approximately 53 people in 1984. It is important to note that much of the employment is created during the winter months when cultured mussel harvesting is in full swing.

Trout production has continued to rise slowly although the industry is not experiencing the dramatic growth of the mussel industry. An eleven week workshop series on salmonid aquaculture was jointly sponsored by U.P.E.I. and the Department.

Open to existing and prospective trout and salmon farmers the topics included site selection, environmental considerations, husbandry techniques and equipment, nutrition, diseases, genetics, harvesting and marketing, aquaculture law and regulations and financial programs. Attendance at the sessions varied from 20 to 50 participants.

Aquaculture Incentive Program

1984 marked the third year of the Aquaculture Incentive Program which was devised with assistance in its design by the Trout Growers Association and Cultured Mussel Growers Association. The form of assistance depended upon whether (a) a mussel operation or (b) a trout operation is being established.

(a) **Mussel Growing:** A buoy stockpile was established upon which a mussel grower may draw up to 1,000 buoys. As the initial rush of entrants to the industry has passed, the number of participants was down in 1984 with a total of 3,375 buoys valued at $7,390 provided to seven mussel growers.

A total of 24,025 buoys valued at $57,560 have been provided to 33 growers over the three years the program has been in existence.

(b) **Trout Growing:** The trout grower submits his proposal for development of his trout operation and indicates the specialized items for which he desires assistance to a maximum assistance of $2,000. In addition, the grower may be forgiven the costs of up to 500 finger-

lings for the first year. Four trout growers received a total of $4,335 in repayable assistance during the year and 1,000 fingerlings valued at $725 were provided.

Fourteen trout growers received a total of $13,970 in repayable assistance as well as 6,000 fingerlings valued at $2,885 in the first three years of the program.

With the exception of fingerlings the grower is required to repay the value of the assistance plus interest. When the assistance is repaid in full on or before the date of maturity, an incentive grant in the form of a 25% deduction of the capital advance will be allowed.

Mussel Loan Guarantee Program

A Mussel Loan Guarantee Program was initiated by the Department in late 1983 to provide confidence to the financial community until such time as the mussel culture industry has established a track record. The program is available to bona fide mussel growers possessing the necessary leases and licenses as well as at least two years pilot scale experience in mussel culture who wish to scale up to a commercial operation. During 1984, a total of $150,350 was guaranteed to the Prince Edward Island Lending Authority on behalf of four separate operations. A great deal of credit is already being given to the program by the industry for helping it through a difficult period of expansion.

Malpeque Oyster Cultures Inc.

Operations at the government-owned Malpeque Oyster Cultures Inc. oyster hatchery were continued during 1984. In co-operation with the Prince County Shellfish Association using funds provided by Canada Community Development two projects were conducted.

A total of 135,000 veneer ring collectors were set out in Freeland Creek and Bideford River. Excellent spatfall was experienced in Freeland Creek while average spatfall occurred in Bideford River. Elsewhere throughout the Island, spatfall was heavy in some areas while in other areas the set was lost to high temperatures and low oxygen levels in late summer.

A second project produced 1.2 million good quality quahaug juveniles by the hatchery facilities. The quahaugs were reared

through the summer in trays and seeded in a public fishing zone in the Rocky Point area of Conway Narrows.

Several improvements were made to the facilities of Malpeque Oyster Culture Inc. during 1984. The food production capacity was increased by an addition to the greenhouse. A new seawall should eliminate erosion of the bank which has been threatening the foundation of the main building.

Other Culture Activities

Two seminars on mussel culture were held during the year. In January, the Department was responsible for organizing and moderating a nation-wide seminar on mussel growing techniques in Halifax. This was done as part of the annual Fish Health Workshop — National Aquaculture Association meeting. A second seminar for Island growers was held in Charlottetown in December. Although the lead role was assumed by the National Research Council, the Department of Fisheries and Labour were deeply involved in planning and organizing the seminar which centered on the technological problems facing the industry.

A number of other activities conducted in support of the mussel industry included meat yield analysis, production machinery, processing, transportation, winter harvesting and storage and marketing, each of which is elaborated on elsewhere in this report.

The oyster industry continued to be healthy overall, with landings showing a slight increase in spite of the effects of unsusally high summer water temperatures and low oxygen levels in several rivers causing mortality of fish and shellfish. In West River, above the causeway, the toxic conditions were particularly severe and killed a significant number of oysters on many of the commonly fished beds. This caused fishermen to put more pressure on known beds which survived and to search out new beds. The Department has assisted the local Oystermen's Association to identify the causes of the problem, recommend solutions such as increasing the water exchange through the causeway, and plan oyster redevelopment projects for the affected area.

Other projects carried out for the benefit of the oyster industry include a grant of $4,200 for a night watchman in the heavily

leased areas of Prince County, the provision of materials to the Oystermen's Association for the construction of pit privies on the shoreline near active fishing areas and for the construction of a sand fence to mend a break in the barrier beach at Freeland.

The Department has assisted in the planning for the proposed Fish Health and Disease Unit to be associated with the Atlantic Veterinary College. A major function of the facility will be teaching and research in the field of pathology. Using primarily commercial and cultured species in its research, the Unit will be a focus of veterinary skills and referral services for fish farmers, as well as lobster and eel pound operators. This development has been a catalyst in the establishment on Prince Edward Island of Aqua Health Ltd. a company specializing in the production of fish vaccines. With the rise in commercial aquaculture production and these fish health centres, it should be possible for this province to become a major centre of fish related science.

PORT MAINTENANCE

The Department continued to provide for the minor maintenance and power consumption costs of 115 electrical services located at 54 Island fishing ports or shore sites. These services include wharf lighting systems and electrical outlets as well as water system pumps. This service ensures that adequate lighting and water supplies are maintained and functional for the convenience and safety of all port users.

In co-operation with the P.E.I. Department of Health and Social Services, the Extension Division helped co-ordinate a program which provided night watchmen at most major P.E.I. fishing ports. The watchmen were hired by Social Services through their Job Creation Program for social assistance recipients. The port committees and wharfingers at the various ports supervised the employees and the program was well received by fishermen. The presence of the night watchmen resulted in an almost total reduction in thefts and vandalism at the ports and supervision of boats, particularly during storm situations was of great benefit to fishermen.

For approximately 15 years, the Extension personnel of the Department have been assisting fishermen's port committees to plan, apply for and administer job creation projects that produced better

conditions at Island ports. The usual developments undertaken through these projects have been construction of fishermen's buildings and new wharf facilities. During the year, the Malpeque Port Committee was successful with a land erosion control effort, which was of a new and diversified nature.

By using a workforce of four, funded by Employment and Immigration Canada, both Federal and Provincial Governments, through their related departments, provided the required material to stabilize a sand dune problem and ease the negative influence it was having on the nearby navigation channel. The three-month project was successful and may become a future means of controlling this sand problem along the Island's North Shore.

In addition, in late 1984, the Extension Division assisted Port Committees complete more than 20 Canada Works Project applications for a number of improvements at P.E.I. fishing ports. C.E.I.C. officials have transferred these applications to the L.E.A.D. program and they will be assessed by Small Craft Harbours and C.E.I.C .officials early in 1985. Hopefully, a large number of these projects will be approved and benefit the fishing community.

ECONOMIC REGIONAL DEVELOPMENT AGREEMENT

In June of 1984, the P.E.I. Department of Fisheries and Labour and the Department of Fisheries and Oceans signed a five year $10 million fisheries development sub-agreement as part of the Federal Provincial Economic Regional Development Agreement. The terms of the agreement call for $7.5 million in federal development spending over the five years and $2.5 million in new development initatives by the P.E.I. Department of Fisheries and Labour.

The Extension Division played a lead role in negotiating the E.R.D.A. agreement and developing programs under the agreement. As well, the Division organized consultation meetings with representatives of the P.E.I. fishery in July and December of 1984 to ensure there was involvement from the fishing industry in planning the development initiatives.

MAMMAL REMOVAL PROGRAM

The Department assumed responsibility for the removal and disposal of stranded mammals beginning in 1973 and in 1984, nine-

teen marine mammals were identified at various shore locations and buried. The majority of these were seals, however the largest and most costly to remove was a 48 foot fin whale stranded in Alberton South Harbour.

GENERAL

Unusual ice conditions were experienced in early May when heavy northern ice surrounded the province and delayed the opening of the spring lobster season. In some cases, it entered the bays and destroyed mussel farming gear. Two flights around the Island coastline by departmental personnel on May 7 and 10 provided maps of local ice conditions which were broadcast on CBC television. This information proved extremely useful both for fishermen to assess their own situation and for the rescheduling of the opening day for the spring lobster season.

A new local of the Prince Edward Island Fishermen's Association became active in 1984. Called the North Shore Fishermen's Association, it represents fishermen from Malpeque to North Rustico. The Department has been represented at each of its meetings.

The Extension Division co-ordinated a fish offal removal program during the groundfish and herring seasons in Southern Kings County. Fish offal was removed from fishermen's tanks and/or processing firms in the ports of Graham's Pond, Mink River, Machon's Point, Murray Harbour and Beach Point. For the most part, the offal was transported to the fish meal plant at Usen Fisheries Ltd. in Souris.

In conjunction with the Fish Canada Exhibition at Moncton, representatives of the Extension Division met April 5 and 6 with counterparts from New Brunswick, Nova Scotia and Newfoundland to exchange information on provincial programs and to compare viewpoints on current topics of concern in the fishing industry.

Staff of the Extension Division represented the Department on various industry advisory committees including F.P.A.F.C. Development and Quality Committees, the District 7 and 7B1 Scallop Advisory Committees, the District 8 Lobster Advisory Committee, the Seaplants Advisory Committee and the Ad Hoc Fisheries Training Committee.

As well, the Division co-ordinated a series of consultative meetings with fishing industry groups designed to provide input to the Department on programs, policies and budget consideration. Input was received from the P.E.I. Fishermen's Association, the Maritime Fishermen's Union, the P.E.I. Seafood Processors Association, the P.E.I. Oystermen's Association, the P.E.I. Mussel Growers Association and the P.E.I. Trout Growers Association.

PRODUCTION DIVISION

David Younker, Jim Murchison, Barb Pratt,
Barb Harmes

The Production Division provides increased services to the fishing industry in recognizing market potential for product and working with the industry toward meeting this demand. Product availability is identified and markets are sought which offer adequate returns to the industry. Major objectives of this Division are — to promote the consumption of fish products both locally and outside the Province — to provide market intelligence to the industry which can be used to reach informed decisions on markets to serve and product forms best suited to local employment and economic returns — to monitor the supply of raw material with particular emphasis on ensuring P.E.I.'s participation and fair share of quota allocations — to provide a service to the industry in test marketing new products and to encourage the development of an improved fresh fish industry on P.E.I. The Division, in conjunction with the Processing and Quality Division works with the fishing industry in developing new projects for expansion and modernization of processing capability in order to achieve the objective of more added value to the fish products of P.E.I.

A brief description of the programs and projects carried out by the Production Division during 1984 follows:

TEST PRODUCTION

This program was designed to support the marketing function by developing pilot projects to evaluate new market opportunities identified within the fishery.

Fresh Fish

Work continued in marketing fresh Island groundfish to the New England area of the U.S. in 1984. Harald Norve of Harald Norve and Associates entered into a contract arrangement with the Department and Island groundfish processors to market fresh fish in this market.

A series of meetings were held with groundfish processors early in 1984 to formulate plans for the upcoming fishing season and efforts made resulted in sales of approximately 2.5 million pounds. As well, an equal amount was marketed by the industry as a result of pilot efforts carried out in 1983.

Again this year, the market absorbed hake, a species for which there was little demand in previous years. Other species marketed were flounder (dabs), yellowtail, blackbacks and cod. Although prices fluctuated depending on the time of year and the quality of fish available, substantially higher prices on average were achieved than had been possible in the past. Some work was carried out on test marketing fresh fillets, however, lack of supply did not enable conclusive results to be determined. Additional efforts will be made in this regard in the coming year.

Salt Fish Production

Efforts carried out in 1983 by the Department and five Island processors led to the formation of Island Salt Fish Incorporated which set up a processing facility in the West Royalty Industrial Park. This facility began production in January 1984 and processed a variety of dryed salt products during the year using primarily hake and cod. As well as creating an outlet for P.E.I. wet salted fish, ISI employed a total of 16 workers during the processing season.

The Production Division entered into two contracts with ISI during the year to determine the feasibility of producing other value added saltfish products that hopefully will allow this facility to have added versatility and increased market access in the coming year.

Herring Processing

A contract was entered into with Murray Harbour Seafoods to financially assist in the processing of herring landed by Island fishermen during the fall herring season in eastern P.E.I.

Traditionally, a good deal of herring has been trucked in the round form to processing plants in Northern New Brunswick. Naturally, it is the wish to see value added products produced on P.E.I. thus ensuring additional jobs and spin off to the economy.

Murray Harbour Seafoods processed herring fillets and herring roe for the international market employing an additional shift and were able to keep this facility at full capacity for an additional four to five weeks.

As well, some work was carried out with Malpeque Fishermen's Co-op in producing salted barrelled herring samples. Additional work will be carried out in 1985, on this species.

Seaplants

A professional services contract was entered into with Mason Management Inc. to evaluate the feasibility of producing products from the Furcellaria and Chondrus (Irish Moss) mixture and from Chondrus itself. Mason Management employed Mr. John Whitaker of Whitaker Technical Developments Ltd. to conduct product development and other technical work on seaplant extracts and partially processed seaplant products. This three month project produced results that will be utilized in the ongoing feasibility assessment of extraction facilities.

Fresh Fish Market Assistance

The Fresh Fish Market Assistance program consisted of a retail and a wholesale program. The entire program was designed to create a year-round availability of fresh fish to consumers on P.E.I. The twelve month availability is to be achieved by the development of an adequate wholesale service for fresh product from P.E.I. and the Mainland when deemed necessary, and by increasing the number of fresh fish retail markets throughout P.E.I.

Assistance on the wholesale aspect of the Fresh Fish Market Assistance was provided to Aiden Doiron, North Rustico, P.E.I., in 1983 to ensure the provision of a variety of fresh fish species. Fresh fish at the wholesale level is obtained mainly from the Island fishermen while species not native to P.E.I. waters are obtained from off-Island sources. The wholesale operation acquires the necessary species, processess it and makes it available to fresh fish retail outlets, fish peddlers and restaurants on P.E.I.

During the summer of 1984, two full time employees were assigned to the wholesale program. One employee was hired by Aiden

Doiron and the Department employed the other individual. Their efforts were directed at reaching all retailers on P.E.I. and establishing a consistent and large variety of fresh fish to meet consumer's demands. Also an advertising and promotional thrust went hand in hand with this program. The wholesale distribution of fresh fish consisted of regular telephone contacts with retailers for orders and the delivery of the orders the following day. When fresh fish was not available on P.E.I., fish was acquired from a fresh fish wholesaler from Halifax, N.S.

The retail segment of the program provides for 50% of the capital costs of the fresh fish facility and equipment to a maximum grant of $5,000. In 1984, several establishments were assisted, as well, retail outlets which were set up in previous years received further assistance where eligible. At present, 20 outlets have been assisted under the program, providing upgraded existing outlets and establishing completely new retail outlets and peddling operations.

Also under this program the efforts of fresh fish markets and food stores presenting good quality fresh fish were emphasized. The improvement in quality of fresh fish has increased consumption over frozen. The promotional aspect also played a major role. Posters, display materials, recipe booklets and other materials were provided to the retailers. As well technical advice on handling fish was provided on demand.

Trade Shows

This division was involved in researching the potential of P.E.I. fish products in Boston and Edmonton during 1984.

Seafood '84 (Boston) — Attendance at Seafood '84 was carried out in conjunction with P.E.I. processors and other P.E.I. government agencies. This trade show provided information on, not only the New England area, but other areas of the U.S. and Canada as well since the show was widely represented. Visits were also made to fresh fish processors in New Bedford, Providence and Boston with a view to continuing the development of markets for P.E.I.'s fresh fish during the 1984 fishing season.

Food and Hospitality Show (Edmonton, Alberta) — Representatives of the Production Division participated in this show for the

second consecutive year. The Alberta Food and Hospitality Show is sponsored by the Alberta Restaurant and Food Services Association and is attended by a wide range of interests in the food and restaurant trade. During the show a wide variety of Island products such as hake (whiting), rock crab, smoked fish, mussels, chowders and breaded clams were made available for sampling. Trade leads were passed on to the P.E.I. seafood industry and the presence of the Department at this show helped demonstrate our interest in this market. Additional efforts will be made at promoting products in Alberta in 1985.

Lab and Test Kitchen (Promotion)

This program was designed to make Islanders and tourists more aware of the fish species that are available and the proper methods of handling and preparing seafood. An additional objective of the campaign was to improve the image of seafood products and to encourage the consumption of P.E.I. seafood in market areas presently having limited penetration.

The test kitchen facility served as a base of operation for the Production Division summer employees as well as being used to develop and test recipes, and to prepare for demonstrations.

Seafood Barbecues

Under the theme of "Out of the Sea and Over the Coals" two teams of summer staff travelled throughout the province doing demonstrations on how to barbecue seafood.

A total of approximately 6,000 people, consisting of both Island residents and summer visitors, had the opportunity to sample fresh Island seafood cooked on a barbecue. The demonstrations also included instruction on the proper methods of cooking fish and the distribution of appropriate recipe brochures. Many questions were answered and information on the availability of fish was distributed.

Sixty three of the barbecues took place at various campgrounds throughout the province reaching 3,000 people. The remaining 3,000 people were reached through 15 barbecue demonstrations at special events including: the St. Lawrence Scallop Festival, Council of Marim Premiers, West Point Light House Day, Miminegash Days, Mari-

time Bee Keepers Conference, Labatts Challenge, Northumberland Fisheries Festival, Midsummer Festival, Harvest of the Sea, St. Peter's Blueberry Festival and the Premier's Conference.

Seafood Demonstrations

A variety of demonstrations were carried out as requested by consumers, retailers and special interest groups. These demonstrations included a chowder promotion at the Island Market, a mussel and barbecue demonstration at the West Isle Marine Show and demonstrations to Women's Institute and Senior Citizen groups.

In addition to these requested demonstrations, an in-store demonstration program was carried out during September and October in Island fish outlets. This promotion consisted of a demonstrator being hired to carry out a series of one-day demonstrations. The demonstrations involved preparing cod, hake or sole, passing out samples of the seafoods, distributing various brochures and answering questions pertaining to seafood. The program was backed up by newspaper ads, outlining where and when the demonstrations would be taking place. The project was carried out in conjunction with the Statistics Section as surveys were also conducted by the demonstrator.

Promotional Material

In an effort to gain increased exposure for seafoods, a variety of promotional materials were produced and distributed to consumers, retailers and food service representatives.

Reprints were done on an assortment of brochures including "Out of the Sea and Over the Coals with P.E.I. Seafood' "From the Deep Sea to the Deep Freeze", "Seafood Sensation Vol. 11", and "Serve Supreme Seafood". These brochures received general distribution as well as being featured at special promotional activities such as the barbecues.

One new brochure was developed in co-operation with the P.E.I. Development Agency. The brochure was entitled "Cooking the Catch" and was distributed primarily through the retail stores.

A new poster entitled "Prince Edward Island Seafood — Take a Catch Home" was produced also in co-operation with the P.E.I.

Development Agency and featured an assortment of prepared seafood dishes.

A hanging mobile was also developed for use primarily in retail stores. The theme of the mobile was "Serve P.E.I. Fish — It's Catching". To compliment the mobile, stickers using the same theme were produced as well.

November Fish and Seafood Month

For the seventh year, November was designated as Fish and Seafood Month in Canada. Promotional activities carried out during November included a series of radio ads promoting the consumption of fish, newspaper advertisements, an ad in the "Charlottetown Monthly Magazine", mail-outs to retailers and Home Economics classes, the placement of posters and brochures in retail fish outlets, the distribution of press releases and a press reception and seafood luncheon to kick off the campaign.

A major component of the November promotional campaign was sponsorship and involvement in the annual meeting of the P.E.I. Restaurant Association. The theme of the meeting was "seafood" with seafood menu items being featured and a series of seafood demonstrations taking place. A presentation was also made on how to identify good quality seafoods.

Reaction to the campaign was very favourable with numerous requests for recipes, etc., being received from consumers.

Retail Promoton

A two-week seafood promotion in Island fish outlets was sponsored by the Production Division. The promotion, entitled "Summer Seafood Sensation '84" consisted of newspaper advertisements, recipe distribution and a contest for the most attractive fish display. This was the second year for the retail promotion and the level of participation in the program indicates that it was very successful.

Culinary Olympics

The Production Division assisted the Canadian National Olympic Team to compete in the World Culinary Olympics by contributing toward the purchase of lobsters to be used in this event.

During the Culinary Olympics, which took place in Frankfurt, West Germany in October of 1984, the Canadian Olympic team featured Canadian food products including the lobster.

The Canadian National Olympic Team won the Gold Medal in the World event by accumulating the most points through their winning of Gold, Silver and Bronze medals, thus giving Canada and Canadian Seafood products a good deal of publicity on a world level.

STATISTICS

Statistical information was compiled on a regular basis for the benefit of the fishing industry and various levels of government.

Information was compiled on a weekly basis on fish prices and market conditions and was provided to the industry through the Department's radio program and Island newspapers. This data was collected every Friday to give a view of the previous week's prices. A selected number of processing plants on P.E.I. and a number of fishery representatives from the other Atlantic Provinces were contacted for fish prices. A telex containing Maritime fish prices, supplied by the Department of Fisheries and Oceans in Halifax was also used in the compilation of the Fish Price Report. Information on prices and market trends for Eastern United States was received through the National Marine Service in Boston, Mass.

Information was updated in such areas as fish landings and values, seafood production, fish processing, employment levels in fishing and other related topics. Publications were prepared through this section on "Fishery Statistics" and on "Seafood Consumer Awareness."

Employment levels in processing were examined by collecting 1984 information from forty-one processing and seaplant production establishments. This information is presently being analyzed wth respect to the average and total number of employees on a part-time and full-time basis.

A general study was carried out showing the level of awareness consumers have toward seafood and detailed information was compiled on the tuna fishery on P.E.I. Information is summarized as follows:

Consumer Awareness Study

A study on consumer awareness of seafoods was carried out in co-operation with the Promotion Section of this Division in the summer and fall of 1984. In addition to compiling statistical information the study served to educate consumers about seafood.

Information was gathered from consumers in their homes, in retail stores, and at special events such as festivals and exhibitions. At this time consumers also had the opportunity to sample seafoods and to discuss any concerns that they had about seafood.

Educational material on topics such as buying seafood, storage of seafood, seafood cookery, nutritional value of seafood and species identification was provided in the form of a "Seafood Consumer Awareness Handbook".

Statistical information was collected on purchasing seafood, factors inhibiting in-home consumption, comparison preferences and simulated fish products. More detailed information pertaining to fresh fish was collected through a supplementary survey. Some of the results of the survey that were particularly interesting are as follows:

(1) In comparison to beef, chicken and pork, seafood is ranked third for use in the family's diet. Beef and chicken rank first and scond respectively with pork being fourth. In terms of nutrition, 48% of the respondents felt fish was more nutritious than beef, 64% considered fish more nutritious than pork, and 59% felt fish was equally nutritious to chicken. Only 15% perceived fish to be less nutritious than beef, 6% considered fish to be less nutritious than pork and 1% felt fish was less nutritious than chicken. Most consumers felt as confident in preparing fish as they did in preparing beef, chicken and pork.

(2) Fresh fish was purchased most frequently from super-markets, fish markets, fish peddlers and fishermen; frozen fish from supermarkets, fresh shellfish from fishermen; processed shellfish from supermarkets.

(3) Even though the favourite fin fish was haddock (24%) and the favourite shellfish was lobster (63%) the most frequently purchased seafood was cod (30%).

(4) The main problem that consumers felt inhibited their consumption is the lack of availability of fresh seafood (56%). Mackerel was considered the most difficult species to obtain, even when in season. 44% of the consumers surveyed felt that "depending on the species" seafood could be a relatively expensive menu item.

(5) 69% of the respondents had never sampled simulated fish products. Of the 91 participants who had tried the products only 46% actually liked them.

(6) Fresh fish is not usually an impluse purchase but is more often a planned purchase. 69% of the respondents plan their purchase of fresh fish.

(7) Baking was the most frequently used cooking method for fresh white fish (37%) with pan-frying following second (23%).

(8) In deciding whether to purchase fresh fish the major factors considered were: appearance, family's attitude toward fish, the price, and ease in preparation.

Tuna

This Division annually monitors and analyzes tuna fishermen's catch records to provide a base for future management decisions.

The bluefin fishery has grown from a total of five fish landed in 1967 to a high of 1,048 fish landed in 1974. Due to the inability of other areas to fill their quotas, P.E.I. tuna fishermen were allowed to surpass their quota of 660 fish in 1983. A total of 789 fish were landed that year. In 1984, although the allowable quota was again 660 bluefin tuna, only 392 tuna were landed by P.E.I. fishermen. Of these 392 tuna, 58 were caught in the St. George's Bay, N.S. area.

In 1981, a "tended line fishing method" was introduced to this fishery. Rod and reel fishing continued from some ports by those fishermen who chartered their fishing boats. Approximately three hundred and forty-two bluefin tuna were landed in 1984 by the tended line fishing method while approximately 50 bluefin tuna were landed by rod and reel.

The average weight of tuna landed in 1984 was 1,007 pounds the largest tuna weighing 1,304 lbs. For comparison, in 1983, the largest tuna weighed 1,317 pounds and the average weight of all tuna landings was 956 pounds while in 1982 the largest tuna weighed 1,235 pounds with the average weight being 895 pounds. In 1981, the largest tuna weighed 1,325 pounds with the average weight for all tuna being 939 pounds.

Division staff represents the Department on the Atlantic Bluefine Tuna Advisory Committee. This committee develops management proposals on an annual basis for consideration and approval by the Federal Minister of Fisheries and Oceans.

Following is a summary of the number of tuna landed by port for the past four years:

Port	1981	1982	1983	1984*
Skinners Pond	(	6	(	(
Sea Cow Pond	(328	40	(444	(219
Tignish	(	187	(	(
Malpeque	—	1	3	—
North Rustico	12	14	22	2
French River	—	—	15	1
Stanley Bridge	—	—	4	—
Tracadie	—	—	2	—
Savage Harbour	6	5	18	1
Morell	9	4	17	7
Naufrage	12	10	61	44
North Lake	66	44	103	46
Souris	—	—	1	—
Fortune	—	3	—	—
Annandale	—	1	1	3
Graham's Pond	—	6	10	—
Beach Point	(82	29	46	10
Murray Harbour	(	42	42	1
TOTAL	515	392	789	**334

* Preliminary

** Additional landings of 58 by P.E.I. fishermen in N.S. ports for grand total of 392.

Resource Monitoring

The Resource Monitoring Program was an Island-wide project employing people in each of the three counties to monitor the commercial landings of a variety of fish species landed. The primary data collected was the length frequencies of fin fish, meat counts in scallops, some marine plant samplings and herring and mackerel fat content analysis.

Table 1 below indicates the number of each species of fish from which data was collected and the average length of these species in the commercal catch. A comparision of 1983 and 1984 is given.

Table 1

Fish Species	No. Measured		Mean Length (cm.)	
	1983	1984	1983	1984
Mackerel	1,297	5,779	33.5	33.2
Herring	3,294	6,600	30.1	33.2

Table 2 gives a comparision of mean lengths of Cod (cm) from 1979 to 1984 inclusive, on the different types of gear used in the fishery.

Table 2

Gear Type	1979	1980	1981	1982	1983	1984
Offshore draggers	51.3	53.8	58.8	56.6	57.2	——
65' dragger				52.2	57.2	48.7
Pair Seine				53.3	56.3	50.9
Single dragger				51.3	54.7	51.6
Nets (Gill)				60.1	60.4	61.4
Longline				59.4	55.3	54.0
Handline (Jig)				52.4	53.4	54.9
Combined (Inshore Gear)				55.0	55.3	57.3

Table 3 gives a comparison of mean lengths of Hake (cm) from 1982 to 1984 inclusive on the different types of gear used in the fishery.

Table 3

Gear Type	1982	1983	1984
65' Draggers	64.2	67.4	55.4
Pair Sene	65.2	62.9	62.5
Single Dragger	61.9	63.2	62.5
Nets (Gill)	69.7	69.7	71.1
Longline	67.5	71.8	68.5

1984 was the first year in which the flat fish were measured as separate species as follows: Greysole, Blackbacks, Flounder and Yellow tail. Table 4 below gives results of monitor programs for 1984.

Table 4

Fish Species	Number Measured	Mean Length (cm)
Grey Sole	137	38.1
Yellowtail	815	29.0
Blackbacks	6,430	29.5
Flounder (Dabs)	9,784	37.5

The data collected under this program is useful for market research work and can be used as a guide to indicate the size of fish species landed. The fat content of herring is a good indicator to identify fish for the smoking process. This program also provides basic information that helps assess the province's position within the various fisheries management and industry development strategies. Data collected, particularly relating to hake landings, was provided to the D.F.O. Gulf Region Headquarters in Memramcook, N.B. This data was placed on computer for further analysis.

Fishing Industry Technology

The Fishing Industry Technology Program was initiated to assess opportunities for application of computer technology in the fishing industry of Prince Edward Island. The use of computers has found its way into virtually every business throughout the world. On P.E.I., some fish processing plants are using microcomputers with respect to bookkeeping, payroll and other aspects of their operations.

Increasing interest has been expressed by the processing industry regarding information on fisheries related software packages for the industry.

One of the major fish processors in Kings County received assistance of $10,000 for software development and training to upgrade their present computer system. The software was designed to give better control on yield of fillets on groundfish species and the performance of individual employees. This enabled the processor to institute a bonus-incentive system thereby affording employees an opportunity for greater earnings and hence increase plant efficiency.

Within the Department of Fisheries and Labour, two staff members have completed a course in Basics of Computers for Small Business from Holland College. One staff member is working with the assistance of the Computer Services Division to access suitable software and micro computers for the Department. Once the computer is purchased and installed, it will be used in various aspects of the Fisheries and Labour Divisions for keeping files, market information, boiler inspections, fishermen investment incentive programs, and other work. The overall objective is to increase the efficiency of office time thereby allowing a better service to the public. Assessment of software packages and how they can be used in all aspects of the fishing industry is a major priority and work will be carried out with processors and fishermen in the months ahead.

General

The Marketing Working Group formed by the Production Division during 1983 continued efforts in 1984. This group consists of representatives from fishermens and processors' organizations, the P.E.I. Department of Fisheries and Labour, M.D.C.,D.F.O.(P.E.I.) and the Department of Regional Industrial Expansion (DRIE). The group, formed to evaluate marketing strategies, develop promotional programs and improve communications held meetings throughout the year for consultation on fresh fish sales, salt fish developments, increased involvement of the Canadian International Development Agency and a number of other concerns and developments.

Staff of this Division represented the Department on a number of species management committees namely: Atlantic and Gulf Groundfish Advisory Committees, Snow Crab, Herring, Mackerel, Bluefin

Tuna and Lobster Management Committees for Districts 7B, 7B1 and 8. These committees develop management proposals on an annual basis for consideration and approval by the Federal Minister of Fisheries and Oceans. Provincial representation helps to ensure the interests of the Province are maintained through the negotiation procedure.

Membership is also held on the P.E.I. Marketing Council, M.D.C. Fisheries Planning Committee, the Small Business Review Committee, and the InterDepartmental Market Development Management Committee.

PROCESSING AND QUALITY DIVISION

Don Judson, Lloyd Murphy

The role of the Processing and Quality Division is to increase the availability and utilization of raw material, encourage innovative processing techniques and improve fish quality. Two personnel act as a resource center for the fish and seaplant processing sectors. The Division implements the P.E.I. Fish Inspection Act and Regulations and Provincial Vessel Subsidy, Fleet Development, Diesel Engine Conversion, and Commercial Fishermen's Investment programs. Support is also provided to the processor sector in the preparation of financial packages for new development and loan guarantees.

Activities undertaken during the twelve months ending December 31, 1984 follow:

Fish Inspection Act

The P.E.I. Fish Inspection Act and Regulations gives the Province authority to ensure that seafood is purchased, processed and marketed under sanitary conditions.

Each registered non-export facility is routinely examined to determine if plant construction and sanitation regulations are adhered to.

During the 1984 season 62 fish buying licenses and 16 non-export fish processing licenses were issued.

A qualified Processing Technican monitored all processing establishments throughout the year, identifying the necessary requirements to individual operators. The Department's Inspection personnel worked with the processing industry, educating as to better fish plant practices, and pointing out areas in the operation that require improvements.

During the 1984 fishing season, no serious health hazard violations resulted with regard to fisheries products. A number of complaints on fish quality were investigated, and recommendations for improvements were suggested. Under the Fish Inspection Act, fish quality is monitored to ensure product is fit for human consumption.

QUALITY ENHANCEMENT

Quality Control (In-Plant)

This was an ongoing program from the previous year and provided financial assistance to the fish processing sector enabling them to engage technology students enrolled in the Fisheries Technology program (Holland College, Summerside) to work with their employees in the plant to set up a practical and workable in-plant quality control program.

In 1984 three processing firms took advantage of the program and were quite pleased with results achieved.

Meat Yield

The mussel meat yield monitoring program was continued throughout 1984. This program initiated in 1982, provides a valuable service to the mussel growers and shippers on P.E.I. by assessing mussel meat yields on a weekly basis. The data collected was mailed to the growers to assist in all aspects of their business including growing, harvesting, and selling. It is the intention of the Department to lengthen the time frame from the present six months per year to a twelve month survey in order to establish a more precise pattern for mussel meat yields.

The formula used to determine mussel meat yields is similar to that employed by competitive producers in other areas and relates to a labratory yield as opposed to yields that would be experienced in a processing operation. The formula employed was as follows:

Mussel Meat Yield:

$$\frac{\text{Steam meat weight}}{\text{Steam meat weight} + \text{Steam shell weight}} \times 100$$

The yield was determined from a random sample of 30 mussels steamed at 10 ATM at 100°C for 10 minutes. This formula has been determined to be the standard technique for meat yield analysis by the mussel industry for fresh sales.

The meat yields throughout the period of testing ranged from a low of 27% in July and August to a high of 55% in December to April.

Some work was also carried out to determine commercial meat yields as opposed to the labratory meat analysis. The formula for that analysis was as follows:

Commercial Meat Yield:

$$\frac{\text{Weight Shucked Mussel Meats}}{\text{Weight live Mussels in Shell}} \times 100$$

The findings of this analysis indicates that a plant could expect meat yields to range from 20 - 25%.

Provincial Youth Development Program

In cooperation with the P.E.I. Department of Industry through their Youth Development Program ten young people were hired to work on a rotating basis with the P.E.I. Mussel growers. The workers assisted growers in their spat fall collection operation, preparation of growing equipment, placing mussels in growing stockings and other general duties.

The employees were salaried under the Youth Development Program and administration and supervision was provided by the Department of Fisheries and Labour.

TECHNOLOGY IMPROVEMENTS

This program provides financial assistance to Island processing firms for leasing particular machinery on a trial basis to assess the suitability and economic benefits to their operations.

During the 1984 fishing season, three plants participated in this program. The machines tested were a herring filleting machine, a groundfish filleting line, a vaccum sealing machine, and a skinning machine.

Murray Harbour Seafoods tested an Arenco Herring Filleting Machine over a two month period. The machine proved to be very effective and economically feasible to the operation.

North Ocean Enterprises tested a Groundfish Processing Line in their plant at Souris. The line consisted of an SD-95 Deheading Machine, an SF-95 filleting machine and a Seawall Skinning Machine.

The SD-95 Deheading Machine featured an automatic head measuring and variable speed control. This machine cuts each head in a clean "v" fashion, cutting well over the top of the head to obtain maximum yield. The effeciency and speed of the process was equally effective on both cod and hake.

The SF-95 Groundfish Filleting Machine was fully automatic and could be operated by one person. The machine featured an electronic measuring system which instantly positioned the machine guides at each cutting station according to the exact size of the individual fish. This machine worked perfectly on hake, however, with cod, the machine did not prove to be satisfactory.

Fillets after leaving the filleting machine dropped into a conveyor and fed into the skinning machine.

Tignish Fisheries Co-op tested a TOACO Fish Skinning Machine in their operation at Jude's Point. Over a six month trial period the machine proved very effective and it was determined that the plant's fillet operation would warrant the purchase of a fillet machine of this nature.

Unloading Systems

During the 1984 fishing year a great deal of work was carried out with respect to improvement of fish quality. The handling of fish at dockside was looked at in an effort to establish a workable system which would enhance and retain fish quality.

Three fish unloading systems were manufactured by local firms and the Department purchased the equipment and leased them to the industry on a trial basis.

A portable bucket unloader was manufactured at Charlottetown Metal Products Ltd. and tested at two harbours throughout the fishing season. The unloader was constructed on a mobile trailer and featured a grading conveyor with a moveable 12 ft extension. The unloader was hydraulically operated and powered by a diesel engine. During trials, it was determined that an electrically driven hydraulic system would be more suitable for landing ports on P.E.I. The important feature of this unit is that it can be easily moved from one location to another in minimum time and at minimum expense.

A stationary bucket unloader manufactured at Charlottetown Metal Products was purchased by the Department and leased to Souris Seafoods, a major groundfish processing plant in Souris. With a few minor changes and modifications, the unit proved to be very effective and maintained the qualty of the fish being landed. One draw back of this unit noted by the user was the slower speed unloading as compared to a sucker system. However the maintenance of the quality of the fish far outweighed this point.

A third method investigated was a conveyor unloading system. This unit was manufactured by Island Metal Products and leased to Tignish Fisheries Co-op. The unit consisted of a 40 ft. conveyor which elevated the fish from boat level up to an inclined flume with tow weighing scales on the end. This system proved effective for Tignish Fisheries since it was designed for a port with a large number of inshore groundfish boats landing fish in relatively small individual volumes. A unique feature of the system is that the lower end of the elevator can be adjusted up or down very easily making the hopper level with the washboard of the boat thus making handling very easy and also assuring that the quality of fish is preserved.

Professional Services

Assistance was provided to Island Salt Fish Inc. to engage a professional to assess aspects of their operation relating to its size, location, need for expansion, etc.

The assessment took into account fish supplies, market outlooks and cost effectiveness of various scales of operation and proved useful for the company to determine management strategies.

Dockside Graders

To continue the Department's thrust of improving the quality of fish landed on P.E.I., the Department of Fisheries in co-operation with Federal Department of Fisheries and Oceans engaged four qualified and experienced fish quality specialists.

The function of these specialists was to train industry (processors) personnel on fish quality evaluation (dockside grading). The training consisted of two weeks in the classroom followed by one or more weeks in the field. Over a twenty week period twelve industry personnel were trained to be qualified dockside graders.

During the course of employment these quality specialists worked closely with the industry in quality enhancement. They evaluated the various methods of handling, storing and off-loading fish and determined which were more successful in retaining the quality of fish. The quality of groundfish held in insulated containers and immersed in sea water with ice added proved far superior to most other methods.

It is estimated that approximately eighty industry graders are required to be trained and in place when federal mandatory dockside grading is enforced January 1, 1986. Therefore the Department will continue its fish quality enhancement programs and training for the 1985 year.

Financial Support

Fish processors, fishermen and service industries; e.g., boat builders, are assisted in preparing financial packages that will lead to development of their respective enterprises. Such packages include applications for development grants, capital or operating loans, and loan guarantees. The Division maintains a close liaison with industry organizations including seafood processors, boat builders and fishermen's groups and works co-operatively with them to develop their interests.

Provincial Vessel Subsidy Program

This program, initiated on March 2, 1978, provided Island fishermen with a 15% subsidy on the total cost of new vessels to a maximum of $3,500 for those vessels purchased on Prince Edward Island. A maximum subsidy of $2,000 was available for outfitting vessel hulls built off-Island with equipment purchased on Prince Edward Island.

The objective of the program was to encourage fishermen to continually upgrade the average age of inshore vessels engaged in the Province's fishery and to remain current with changes in vessel construction and outfitting.

A total of 50 fishermen received the Provincial Subsidy on their new boats constructed in local boat shops during the fiscal year 1983-84. The total amount of subsidy paid out was $171,968 for an average of $3,439 per application.

The Department, during the 1982 fall planning sessions with fishermen's and boatbuilding groups, determined that the fisherman should continue to purchase the boat model of his choice and that a differential subsidy should be available to those fishermen who construct hulls in off Island boatshops but purchase their outfitting equipment from Island suppliers.

Thirteen fishermen received subsidies to outfit their vessels with equipment purchased on Prince Edward Island in 1983-84 and received a total of $21,719 for an average of $1,974 per application.

The Vessel Subsidy Program came to a close on July 15, 1983, for acceptance of new applications. Those approved prior to July 15 had until March 31, 1984 to complete their new vessels. Applications received since July 15, 1983 are eligible to receive assistance under the Fishermen's Investment Incentive Program reported on later.

Fleet Development

The fishery economy of Prince Edward Island is highly dependent upon the annual volume of raw material (fish landings) available to Prince Edward Island processing plants. It is in the Province's best interest to increase this volume where possible and to

ensure that all fish catches are landed using quality methods. In order to do this, fishermen must have modern seaworthy boats capable of using current harvesting techniques in a most efficient manner. The Department initiated a fleet development program of providing financial incentives to fishermen to convert their vessels to diesel power, install onboard quality fish handling systems and expand the near and offshore fleet. The report on each segment of the program follows:

Diesel Engine Conversion Program

Diesel engines are more fuel efficient than gasoline models, maintenance is usually minimal, and the operating life of a diesel engine is much longer than that of a gasoline engine. The diesel engine is more reliable and dependable under arduous conditions. Although the initial investment for a diesel engine is somewhat higher than for a gasoline engine, the savings realized from using less fuel (up to 50% less) would pay for the difference in a very short time. To assist fishermen with the initial high cost of conversion from gasoline to diesel engines, the Department provides a grant of 25% of the capital cost to a maximum of $2,500 for new diesel engines installed in existing vessels powered by gasoline engines for at least one fishing season. The program was initiated on April 1, 1982 and provided for retroactive applications back to November 15, 1979, those being approved at $1,500 and $500 for the year to November 15, 1981 and to November 15, 1980, respectively.

The total number of fishermen receiving financial assistance on their new diesel engine up to December 31, 1982 was 84. Thirty-five were retroactive applications, and 49 were for the nine-month period to December 31, 1982. During the calendar year to December 31, 1984, 47 fishermen received financial assistance on new diesel engines, down from 49 in the previous period. On hand are 40 applications that have been approved. The 47 fishermen received a total of $110,-002, for an average assistance of $2,340.

On Board Fish Handling Systems Program

The marketplace demands that fish be of high and consistent quality. In order to improve the quality of fish landed by larger vessels, the Department provides assistance to commercial vessel owners at the rate of 25% of the installed capital cost to a maximum of

$10,000 for onboard fish gutting machinery and fish cooling units. On-board fish gutting machines were placed on two 65-foot draggers operating out of Georgetown in 1982; however, no applications for assistance were received in 1983 or 1984.

Near and Offshore Fleet Development Program

The Department has been actively assessing alternate methods of increasing the overall annual volume of raw materials landed on Prince Edward Island by vessels larger than 30 gross tons. A limited number of these vessels can be engaged in the ground fishery in the Gulf Region, based on license limitations. Options appear to be construction of near-shore vessels by fishermen who now have the required licenses and the acquisition of new or used medium or large offshore vessels which have the required licenses with them.

A policy respecting the level of financial assistance is in place. It provides Island fishermen with a grant of 25% of the capital cost to a maximum of $60,000 if the project is eligible for Federal Vessel Construction Assistance, or 35% to a maximum of $80,000 if it is ineligible for Federal Vessel Construction Assistance.

In 1983, two Souris area fishermen received assistance under this program for construction of two 45' fibreglass solid decked vessels of 46 gross registered tons. These vessels are effective pair seiners and during the 1984 season provided very good returns to the owners and crew. This pilot project was also in place for the 1984-85 fiscal year, and substantial interest was expressed by Prince Edward Island fishermen, especially in Kings County. Interest is currently being expressed from the West Prince area, with no firm proposal being received to date. In the calendar year ended December 31, 1984, a total of eleven applications were received, of which six were approved for construction during the 1984/85 fiscal period. One of the six has declined the offer of assistance, and five are in various stages of construction. Two 42-foot fibreglass decked over vessels in the 36 gross registered ton range are nearing completion for Souris and Graham's Pond fishermen. The Souris vessel will operate as a groundfish dragger and herring netter, while the Graham's Pond vessel will primarily operate as a groundfish pair seiner/dragger. Three 45' fibreglass vessels of 46 gross registered tons are in early stages of construction for two Souris fishermen and a Murray Harbour area fisherman. The two Souris vessels will operate as seiners and have the cap-

ability to drag groundfish, and the Murray Harbour vessel will operate as a dragger. The five vessels are scheduled to operate in the 1985 fishing season and thereby contribute significantly to increasing Prince Edward Island's share of the groundfish Total Allowable Catch in the Gulf Region.

Seaweed Stabilization Program

The mixed moss (Irish Moss Furcellaria) in Eastern Kings County is highly dependent upon one market outlet. The main buyer is experiencing reduced demand for the processed product and desires to reduce the inventory holdings over a reasonable period of time. The Department, in the interest of stabilizing the harvest of this portion of the seaplants industry, entered into an agreement with P.E.I. Seaweeds Ltd. to continue to buy good quality mixed moss which the Province of Prince Edward Island would hold as inventory until normal shipping time to the overseas buyer in the following spring and summer. The Province absorbed the inventory holding costs of the 1983 production of dried mixed moss, which was delivered to the overseas buyer during the 1984-85 year.

Current economic conditions dictated that the main buyer would not be buying in the 1984 season, again due to high inventory holding costs and a more pronounced lower demand for processed product. Similar arrangements were made between the Province and P.E.I. Seaweeds Limited for the 1984 season as for the 1983 season. The Province absorbed partial costs related to wet moss purchases, operations, overhead and carrying charges for the purchase from fishermen and handling of wet storm tossed and sun dried moss. The 1984 production is held in inventory pending finalization of marketing details.

Fishermen's Investment Incentive Program

Fishermen have long pressed for preferential interest rates for monies that they must invest directly into their fishing enterprises. They maintain that direct financial grants usually put individual fishmen in a position of increasing their debt load for capital items at inappropriate times. The Department supports the investment incentive method of providing assistance to the primary fishing industry, as it enables individual fishermen to develop their enterprises in an orderly manner and retain a balanced financial business package. As-

sistance is provided in the form of a four percentage point interest reduction grant paid directly to the fisherman upon receipt from a recognized lending institution of itemized charges related to approved projects. Eligible projects can include new or used capital asset purchases, acquisition of fishing enterprises and fishing privileges, repairs to capital items and working capital loans.

The program came into effective May 24, 1983; and during the period to December 31, 1984, 215 applications have been received for assistance covering a broad range of eligible projects. The total amount of loans approved for assistance is $1.93 million for 152 fishermen who have completed application details following their approval for an average loan of $12,697. The average loan has increased from a 1983 figure of $9,024 to a 1984 figure of $14,428, reflecting a greater proportion of loans for new fishing vessels. This program is beginning to reach a high level of acceptance from Prince Edward Island fishermen.

LABOUR DIVISION

LABOUR DIVISION

Roger W. Kennedy, Assistant Deputy Minister and Chief Conciliation Officer, Linda Birt, Secretary

The Labour Division of the Prince Edward Island Department of Fisheries and Labour is comprised of the following Branches:

Industrial Relations Branch
Labour Relations Board
Employment Standard Branch
Employment Standards Advisory Board
Boiler Inspection Branch
Manpower Development Branch
Occupational Health and Safety Council
Labour Management Branch

Prince Edward Island has a labour force of approximately 56,000 of which 57.1% (31,900) are male and 42.9% (24,100) are female. Of the labour force of 56,000 approximately 10,000 (17.9%) are unionized (7,000 in the public sector and 3,000 in the private sector).

For the third quarter of 1984 Statistics Canada quotes major wage settlements in Canada as increases of 3% for the public sector and 3.1% for the private sector.

Statistics Canada quotes the P.E.I. industrial aggregate for August '84 over August '83 as increasing 2.2%, and the Conference Board of Canada predicts a 4% increase in the Canadian Consumer Prices Index for 1985.

On June 30, 1984, Mr. L. W. (Ken) Brammer retired as Deputy Minister of Fisheries and Labour after fifteen years service with Government, eight of which were as Deputy Minister. Mr. Harry O'Connell replaced Mr. Brammer as Deputy Minister of Fisheries and Labour and Mr. Roger W. Kennedy was appointed Assistant Deputy Minister (Labour).

Mr. Ernest "Ted" Carter retired on October 15, 1984, as Boiler Inspector after eleven years service with the Boiler Inspection Branch.

For the second consecutive year the Province was strike-free.

The Department provided Conciliation Services in the following cases which constitutes the report of the Industrial Relations Branch:

The Construction Association of Prince Edward Island and Local 1945 International Brotherhood of Painters and Allied Trades. Settled.

Perfection Foods Limited and Local 1515 Retail Wholesale Dairy Workers Union. Settled.

Holland College (Administrative Support Group) and the Prince Edward Island Public Service Association Inc. Settled.

The Province of Prince Edward Island as represented by the Minister of Education and Local 1770 Canadian Union of Public Employees. Settled.

The Sacred Heart Home and Local 1588 Canadian Union of Public Employees. Pending.

The General Hospitals of Prince Edward Island and Locals 805, 1051, 1466, 1778, 1779 and 1865 Canadian Union of Public Employees. Settled.

National Sea Products Ltd. (Summerside) and Local 282P United Food and Commercial Workers. Settled.

Cavendish Farms Inc. and Local 282P United Food & Commercial Workers. Settled.

The Government of the Province of Prince Edward Island and the Prince Edward Island Union of Public Sector Employees. Settled.

The Construction Association of Prince Edward Island and Local 902 International Union of Operating Engineers. Settled.

Georgetown Shipyards Inc. and Kings Lodge 1934 International Association of Machinists and Aerospace Workers. Settled by Mediation.

Cavendish Farms Inc. and Local 902 International Union of Operating Engineers. Settled.

Reports in detail of other Branches within the Labour Division follow:

EMPLOYMENT STANDARDS BRANCH

Roy J. Doucette, William G. Monteith

The role of the Employment Standards Branch is to administer and enforce Part III of the Labour Act which endeavors to ensure employees receive payment of wages, vacation pay, proper notice of termination or pay in lieu thereof, payment of minimum wage, and to ensure that the rights of emplyees and employers are not abused by providing them with legislative information through telephone contact, office interviews, information seminars and distribution of Departmental literature.

The Branch was called upon to investigate 125 formal complaints during 1984 and of the 125 formal complaints, 106 have been settled. Of the remaining 19 cases, 8 are still under investigation, 6 cases are being dealt with by the Department of Justice, 1 case will be going before the Employment Standards Advisory Board and 3 cases are awaiting payment.

The total sum of monies received from the 106 formal complaints which have been settled is as follows:

Vacation Pay	$ 7,141.82
Wages	22,178.02
Pay in Lieu of Proper Notice	916.39
	$30,236.23

The following statistical data gives a brief breakdown of what has happened during 1984 in this Branch:

Inquiries	5,287
Investigations	134
Routine Inspections	512

Staff of this Branch represented the Department at the annual meeting of the Employment Standards Subcommittee of the Canadian Association of Administrators of Labour Legislation and also attended the Atlantic Minimum Wage Boards Conference.

EMPLOYMENT STANDARDS ADVISORY BOARD

Michael F. Hennessey, Chairman, Roy J. Doucettte, Secretary

The role of the Board is to hear appeal presentations from employers who have had a complaint filed against them for alleged violations of Part III of the Labour Act, and alsc to make recommendations for Minimum Wage change.

During the year, the Board held four meetings which dealt with five appeals concerning non-payment of wages, vacation pay and pay in lieu of proper notice of termination.

Further, the Board Chairman and Secretary attended the Atlantic Minimum Wage Boards Conference which was held in Halifax, N.S., on October 17, 1984.

BOILER INSPECTION DIVISION

Miller West, Steve Donovan, Marjorie McLean

In administering the Steam Boiler Act and the Power Enginners' Act, the primary objective is to provide a reasonable degree of safety to persons and property in the province. During 1984, the Division experienced a productive year in the administration of the many programs falling within the jurisdiction of this legislation.

Boiler Inspectors are appointed by the Lieutenant Governor in Council to conduct inspections and provide information to the public regarding any matter covered by this legislation.

Through sickness and retirement, the Division suffered the loss of one inspector for six months of this calendar year. (Ernest Carter retired in October, 1984). This resulted in an increased workload for the Division and the effect is evident in the inspection statistics illustrated below.

ACTIVITIES UNDER THE STEAM BOILER ACT

INSPECTIONS:

	1984	1983	1982
Boilers:	1,004	1,277	1,275
Pressure Vessels:	1,453	1,549	1,462

FEDERAL INSPECTIONS:

By a negotiated agreement of $96.00 per inspection between the Provincial Department of Fisheries and Labour and Labour Canada, the Division conducted 324 inspections on Federal property during the year.

All boilers and pressure vessels (with the exception of those in private residences and apartment buildings housing less than five families) are inspected upon installation and yearly thereafter. Dur-

ing the course of the inspection, the Safety Officer examines the unit for signs of deterioration and ensures that all safety controls are present and working properly.

Any adverse condition that is considered a potential hazard must be corrected by the time of reinspection — 30 days. The following is a summary of potential hazards averted:

	1984	1983	1982
Safety Valve Seized or Missing	20	39	69
Defective Safety Valve	40	31	51
Low Water Cut out Defective or Missing	51	65	87
Limit Control Defective or Missing	3	3	4
Defective Water Glass	8	6	4
Accessories and Connections Requiring Repair	20	16	27
Heavy Scale Buildup	12	14	18
Miscellaneous Unsafe Conditions	37	46	50
Major Repairs Required	12	18	24
Condemned or Out of Service Pending Repairs	7	4	5
TOTAL	210	242	460

ACCIDENTS:	1984	1983	1982
Accidents	1	2	0
Injuries	0	0	0
Fatalities	0	0	0

REGISTRATION OF DESIGNS:

All boilers, pressure vessels and fittings sold for use in Prince Edward Island must be constructed to a registered design. The Division reviews designs submitted by manufacturers to verify that they comply with the minimum requirements of codes and standards ap-

plicable to such items. When a design is accepted, a Canadian Registration Number is issued and this number must be stamped on each unit sold in the Province.

	1984	1983	1982
Boilers	16	14	9
Pressure Vessels	79	85	168
Fittings	70	59	42
Welding Procedures	4	2	4

CERTIFICATION OF WELDERS:

All persons employed to do welding on vessels or structures to which this Act applies must have their Welder's Certification renewed annually. To become recertified, a welder must pass a test under section IX of the American Society of Mechanical Engineers' Code for welding qualifications administered by the Division.

WELDERS CERTIFIED:

1984	1983	1982
95	81	95

MEDICAL GAS PROGRAM:

During the year, the Medical Gas system at the O'Leary Hospital was upgraded to meet the minimum requirements of the Medical Gas Code.

CALIBRATION OF FISH PROCESSING PLANT EQUIPMENT:

In consultation with the Seafood Processors' Association and ,the Federal Department of Fisheries, a program of equipment certification has been established. To this end, all temperature and pressure recording devices associated with cooking retorts are calibrated annually. This program certified equipment for 12 Island seafood processors in 1984.

ACTIVITIES UNDER THE POWER ENGINEERS' ACT:

The Power Engineers' Act provides Regulations for the operation of power plants and heating plants.

The Power Engineers' Board of Examiners, appointed under the Act, reviews and assesses all applications and examinations of persons seeking certification as a Power Engineer. During this year, seven meetings of the Board were held.

POWER ENGINEERS' EXAMINATIONS CONDUCTED:

	1984	1983	1982
Total Examinations	120	91	81
Certificates of Qualification Issued	26	20	19

LEVEL OF EXAMINATIONS:

Fourth Class	50
Third Class	53
Second Class	17
First Class	0

POWER ENGINEERS CURRENTLY REGISTERED:

	1984	1983	1982
First Class	11	11	11
Second Class	26	23	24
Third Class	68	67	70
Fourth Class	199	181	161
Refrigeration "A"	5	4	4
Refrigeration "B"	25	25	27
	334	311	297

PLANT REGISTRATION:

Plants requiring certified operators according to the Act must be registered with this Division. The plant is then issued a certificate

in accordance with its maximum output. The number of registered plants on Prince Edward Island stands at sixty-four ranging in size from Fourth Class to First Class and Refrigeration "A" and Refrigeration "B".

GENERAL:

Throughout the year, the Chief Inspector participated in the activities of the Chief Boiler Inspectors' Association; the C.S.A. (Canadian Standards Association) B-51 Code for the Construction and Inspection of Boilers and Pressure Vessels and the C.S.A. B-52 Code for Mechanical Refrigeration. As well, the staff benefited from their participation in Training Programs relative to the Division.

In August of this year, the Division successfully hosted the Annual Meetings of the Chief Boiler Inspectors' Association and the C.S.A. B-51 and C.S.A. B-52 Code Committees.

LABOUR RELATIONS BOARD (P.E.I.)

Chairman — J. J. Revell
Chief Executive Officer — Wayne MacKinnon

During 1984 the Board dealt with fourteen separate cases in its areas of responsibility.

The Board issued three Certification Orders during the year. Two Jurisdictional Disputes and one Application for Reconsideration were also brought before the Board in 1984.

Additional cases brought before the Board included two Applications for Amendment; two Applications for Revocation; two Applications for Successor Rights; an Application for Merger, and an Application for Consent to Apply for Certification.

One case involving a revocation went before the Supreme Court.

Members of the Labour Relations Board are Messrs. Harry Snow, Roy Lambie, Lloyd Weeks, Robert Crockett, George McInnis, and Glen Mitchell. Mr. Wayne MacKinnon serves as Chief Executive Officer of the Board. Mr. J. J. Revell is Chairman of the Board.

LABOUR MANAGEMENT BRANCH

James Coles

Following is the ninth annual report of the Labour Management Branch.

During the year, a new committee was set up with School Unit No. 3 and committees were re-established at Island Metal Fabricators, the Sacred Heart Home, Souris Hospital and Cavendish Farms.

An information booth was set up and manned by the Branch at the C.U.P.E. (P.E.I. Division) Annual Convention; The Federation of Labour Convention; The P.E.I. Union of Public Sector Employees' Convention; The P.E.I. Council of Labour Convention; C.U.P.E. School Employees Conference; The Safety Conference; and the 18th Annual Conference of the Labour Management Relations Council.

The Labour Management Officer attended approximately three hundred labour-management and related meetings during the past year.

On ten occasions during the year, the Labour-Management Officer put on a slide presentation which further explains the importance of labour-management committees; how they work for the benefit of both labour and management by helping to diffuse potentially explosive situations through the development of trust and coperation at the workplace, thereby creating the kind of relations which result in fewer grievances and less items getting to the bargaining table. These presentations also assist in creating a working-together program on various kinds of training required in the establishment as well as changes necessary in times of economic restraint.

The Labour Management Officer attended all meetings of the P.E.I. Labour Management Relations Council and provides the necessary research to assist the Council to function effectively. He assisted in the preparation of and arrangements for the 18th Annual Labour-Management Conference as well as preparing and mailing out the Spring and Conference editions of the L.M.R.C. News Letter.

MANPOWER DEVELOPMENT DIVISION

Pope Connick, Louis Dalton, Alton Dolliver,
Harvey Hyde, Joyce Lamont, Hugh MacRae, Dennis Webster

The Manpower Development (Apprenticeship and Industrial Training) Division provides programs that address the training needs of adults. Major objectives of the division are — to provide industry with a continuing supply of properly trained and certified trades persons — to provide adults with the opportunity to develop skills that will increase their ability to secure and maintain employment — to ensure through participation in national certification programs, that Island trades persons have skills that permit their mobility to other provinces.

Tables I, II, III on the following pages provide a statistical picture of apprenticeship training, industrial training and examination/certification activities for the year 1984.

The number of new apprentices has increased slightly over the last year. However the overall total has declined by 84. This is a result of a decline in the construction activity over the past few years. A number of apprentices from the construction trades have had to seek alternate employment. Indications are that we should not experience additional reductions, but can look toward a slow but gradual increase in the years ahead.

Under the Private Trade Schools Act, six schools were registered, twenty-five requests for information and exemption under the regulations were processed.

TRADE	Apprentices January 1, 1984	Apprentices December 31, 1984	New Apprentices	Drop-outs	In-School Training	Apprentices Qualified	Others Qualified	Total Certificates Issued to Date	Total Red Seals Issued to Date	Work Permits
Bricklayer	13	12	0	0	7	1	0	44	36	
Cabinet Maker	11	12	8	7	1	0	1	6	X	
Carpenter	154	97	23	69	54	11	15	503	218	
Cook	37	31	12	13	15	5	15	58	31	
Drafting	0	0	0	0			1	4	X	
Electrician (Construction)	61	53	4	6	27	6	3	281	191	
Electrician (Industrial)	0	0	0	0	0	0	1	5	0	
Farm Equipment Mechanic	16	8	2	7	2	3	0	31	X	
Heavy Duty Equipment Mechanic	4	3	2	1	0	2	3	83	17	
Industrial Instrument Mechanic	0	0	0	0	0	0	0	1	1	
Industrial Mechanic (Millwright)	1	0	0	0	1	1	1	8	2	
Lineman	4	4	0	0	4	0	0	60	11	
Machinist	4	4	2	0	0	2	2	11	4	
Motor Vehicle Mechanic	69	71	27	13	35	12	26	627	195	100
Motor Cycle Mechanic	0	0	0	0	0	0	1	5	X	
Motor Vehicle Body Repair	49	44	12	17	38	0	6	105	27	
M. V. M. (Electrical & Fuel)	2	1	0	0	0	1	2	15	X	
M. V. M. (Transmission)	0	0	0	0	0	0	1	2	X	
M. V. M. (Truck & Transport)	5	8	6	1	4	2	7	27	X	
Oil Burner	4	6	3	0	3	1	0	87	17	
Painter & Decorator	0	0	0	0	0	0	0	3	1	
Plumber	52	42	3	10	16	3	2	248	112	55
Radio & TV Repair	0	0	0	0	0	0	0	2	0	
Refrigeration and Air Conditioning	4	4	0	0	0	0	1	24	2	
Secretary	0	0	0	0	0	0	1	7	X	
Service Station Mechanic	15	8	3	10	2	0	22	396	X	
Small Equipment Mechanic	0	1	1	0	0	0	0	1	X	
Engine Fitter	1	1	0	0	0	0	0	1	0	
Sheet Metal	18	15	1	4	14	0	1	33	16	
Steamfitter/Pipefitter	2	2	0	0	0	0	0	38	11	
Welder	33	48	24	7	30	2	13	44	19	
TOTALS	569	475	133	165	248	52	127	2770	911	155

INDUSTRIAL TRAINING

CATEGORY	Ch'town		S'Side		Montague		Souris		O'Leary		Totals	
	Contracts	Trainees	Contracts	Trainees	Contracts	Trainees	Contracts	Trainees	Contracts	Trainees	Contracts	Trainees
Agriculture	17	17	30	30	5	5	0	0	8	8	60	60
Forestry	1	1	0	0	0	0	1	1	0	0	2	2
Fish and Food Processing	12	21	5	50	2	3	1	1	0		21	84
Manufacturing	26	90	2	6	4	16	0	0	0	0	32	118
Construction	23	52	6	6	3	3	2	2	0	0	34	63
Transportation and Storage	17	22	18	71	4	10	3	3	2	2	44	108
Retail	9	9	3	3	4	4	1	1	0	0	17	17
Hospitality	16	50	1	4	2	4	0	0	4	7	23	65
Office	2	2	0	0	0	0	0	0	0	0	2	2
General	42	137	20	39	4	6	2	2	5	9	73	193
TOTALS	166	407	85	218	28	51	10	10	19	26	308	712

The total number of contracts increased during the year by 41, an increase of 15%. The number of trainees increased by 277, an increase of 63%.

The Forestry, Retail and Office categories recorded decreases — all others increased with the greatest percentage increases in the Hospitality, Fish/Food Processing, Construction and General Categories. An additional $150,000 was received by CEIC to cover the increased activity.

EXAMINATION SECTION

The following examinations were administered during the year.

Apprenticeship Program

Block Release	42
Interprovincial	68
Pre-apprentice	81
Achievement (Service Station)	5

Certification of Tradespersons Program

Certificate of Qualification	211
Certificate of Proficiency	1
Interprovincial	22
Achievement (Service Station)	20
TOTAL	450

Activity in examination and program review/development was as follows:

—	Provincial examinations updated	7
—	Interprovincial examinations validated	9
—	Occupational Analyses validated	7
—	Canadian Occupation Brochures validated	24

— The revision to the Interprovincial examination for the Construction Electrical was completed and sent to the translators. The trade of M.V.M. (Truck and Transport) was designated as a "Red Seal" trade in October and Prince Edward Island was given the task of developing the Interprovincial examination for the trade. Work will commence early in 1985.

OCCUPATIONAL HEALTH AND SAFETY COUNCIL

John A. Carr — Chairman
Phyllis MacDonald — Executive Officer
Heather McKenna — Secretary

1. Change of Name of Premises

The Council office is still located at 42 Great George Street, second floor; however, the building has been officially named "Customs House".

2. Council Meetings

Council held eight regular meetings during 1984.

3. Legislation

The Sub-committee on Legislation completed its study on occupational health and safety legislation and forwarded its recommendations to Executive Council. Executive Council directed the Occupational Health and Safety Council to prepare a White Paper on proposed Occupational Health and Safety Legislation, to be released for public discussion.

The Chairman, John A. Carr, held a press conference in Council office on November 28, 1984. The White Paper was released at that time. Organizations and/or individuals have been invited to send written comments on the White Paper to Council by January 15, 1985. Council will also hear any verbal presentations which organizations or individuals wish to make.

4. Council Membership

Mr. L. W. Brammer on his retirement from Department of Fisheries and Labour was appointed a member of the Council. He had previously served as an ex Officio member. Mr. Roger Kennedy, Assistant Deputy Minister of Labour was appointed ex Offico member.

5. Inquiries

There is an increasing awareness of occuptional health and safety concerns on Prince Edward Island. Information has been requested on a variety of topics such as: acceptable noise levels, dangers from welding, hazards in high school laboratories, stress in the operating room, video display terminals, extremes of temperature, sexual harassment, ergonomics, etc.

6. Public Relations Activities

During the past year, the Executive Officer made presentations to the Kinsmen Club, Public Service Association, Worker's Compensation Conference in both Charlottetown and Summerside, Women in Support of Agriculture and the Heart to Heart Association. A display of occupational health and safety materials was taken to most of these conferences. We also provided displays for Staff Development Days at Holland College, Law Days at Confederation Court Mall, and Occupational Health and Safety Day at Beach Grove.

7. Liaison With Other Agencies

The Executive Officer attended the Annual Canada Safety Council meeting, the Ministers' Conference on Occupational Health and Safety in Toronto and the New Brunswick Occupational Health and Safety Conference. The new Chairman of the Canadian Centre for Occupational Health and Safety, Martin O'Connell, met with Council Chairman, John A. Carr, in March.

8. Prevention and Control of High Blood Pressure in the Workplace

The Executive Officer participated in the development of a pilot project on the Prevention and Control of High Blood Pressure in the Workplace. Others who worked on this project were a representative from the Division of Nursing, Department of Health and Social Services, one from Staff Development, Department of the Queen Elizabeth Hospital, and the Manager of Health Services of Island Tel. This pilot project which will be introduced to Island Tel in February, 1985, has the approval of the P. E. I. Medical Society.

APPENDIX I

P.E.I. LOBSTER LANDINGS AND VALUES

(1920 - 1984)

V = Values in ($000's)
Q = Quantity in millions lbs.

	Q	V		Q	V
20	8.3	703.9	1950	9.9	1,963.0
21	6.4	255.3	51	8.3	1,702.0
22	8.8	651.4	52	8.4	1,849.0
23	9.7	878.8	53	7.0	1,997.0
24	6.5	564.8	54	7.4	1,977.0
25	7.9	661.1	55	8.3	2,224.0
26	6.6	601.8	56	9.7	2,725.8
27	6.3	617.1	57	8.5	2,456.3
28	6.6	553.1	58	8.0	2,510.2
29	7.4	621.5	59	8.4	2,843.2
Avg. 20's	7.5	610.9	Avg. 50's	8.3	2,236.8
1930	8.1	539.7	1960	10.1	3,212.3
31	9.4	553.7	61	9.5	3,055.0
32	11.5	551.7	62	9.7	3,218.9
33	9.2	396.2	63	7.6	3,155.8
34	7.7	536.0	64	7.8	4,210.8
35	6.4	467.8	65	8.8	5,176.6
36	6.0	544.4	66	7.9	3,925.7
37	5.8	524.8	67	9.0	5,228.8
38	7.1	458.8	68	8.7	5,328.9
39	7.0	464.4	69	8.2	5,375.0
Avg. 30's	7.8	503.8	Avg. 60's	8.6	4,188.9
1940	5.6	353.9	1970	8.7	6,231.2
41	6.0	469.2	71	8.2	5,860.6
42	6.4	694.8	72	7.3	6,360.8
43	6.0	999.9	73	7.7	7,503.2
44	6.6	1,149.7	74	6.2	6,347.0
45	8.1	1,503.6	75	8.6	8,135.5
46	7.9	1,962.7	76	8.5	8,510.5
47	6.2	1,070.0	77	9.1	10,012 0
48	6.5	1,411.9	78	11.1	16,648.6
49	6.8	1,388.4	79	11.8	18,073.9
Avg. 40's	6.6	1,102.4	Avg. 70's	8.7	9,368.3
1980	11.8	15,458.0	1982	12.2	22,599.0
1981	11.9	18,519.0	1983	15.5	29,056.1
1984	13.6	23,137.0			

STATEMENT OF DEPARTMENT EXPENDITURES

Labour Administration		
Administration	27,922.36	
New Equipment	527.99	
Materials and Supplies	5,847.23	
Salaries	123,817.21	
Travel	9,578.46	167,693.24
Industrial Relations		
Administration	724.69	
Materials & Supplies	1,149.96	
Salaries	40,869.75	
Travel	2,655.37	45,389.77
Labour Standards		
Administration	1,049.85	
Materials & Supplies	564.34	
Professional	451.92	
Salaries	83,628.94	
Travel	5,238.85	90,933.90
Boiler Inspection		
Administration	814.45	
Materials & Supplies	1,359.62	
Salaries	116,516.01	
Travel	11,227.77	129,917.85
Labour Relations Board		
Administration	651.12	
Materials & Supplies	1,644.16	
Salaries	49,137.70	
Travel	3,488.52	54,921.50
Labour Management Relations Council		
Administration	301.72	
Materials & Supplies	513.43	
Salaries	5,986.20	
Travel	213.90	7,017.25
Labour Management Branch		
Administration	237.18	
Materials & Supplies	509.18	
Salaries	35,685.69	
Travel	3,499.77	39,931.82

Manpower Resources — Administration

Administration	1,140.86	
Materials & Supplies	348.50	
Salaries	44,916.89	
Travel	1,760.51	48,166.76

Apprenticeship

Administration	3,129.73	
Materials & Supplies	2,212.13	
Salaries	210,967.71	
Travel	11,183.32	
Apprentice Training Allowances	600.00	228,042.89

Employment Training Corps

Administration	5,600.00	
Materials & Supplies	1,776.78	
Salaries	57,283.10	
Travel	693.43	65,353.31

Training In Industry

Administration	1,761.54	
Materials & Supplies	471.96	
Salaries	14,296.95	
Travel	2,583.97	19,114.42

Manpower Needs Committee

Administration	1,155.00	
Materials & Supplies	363.54	
Salaries	38,050.39	
Travel	208.00	39,776.93

Institutional Training Services

Administration	1,340.00	
Materials & Supplies	393.42	
Salaries	59,863.62	
Travel	3,072.29	
Vocational Trade	2,243,133.26	
Skills Growth Fund Projects	547,091.00	2,853,893.59

Research, Planning & Evaluation

Administration	1,000.00	
Materials & Supplies	438.97	
Salaries	22,043.63	
Travel	896.85	24,379.45

Occupational Health & Safety Council

Administration	3,035.81	
Equipment	531.04	
Materials & Supplies	3,967.82	
Salaries	59,865.00	
Travel	4,015.68	71,405.35

Fisheries Administration

Administration	1,186.99	
Materials & Supplies	646.45	
Professional	100.00	
Salaries	34,131.57	
Travel	2,950.05	39,015.06

Extension Administration

Salaries	35,904.07	
Travel	4,635.58	40,539.65

Financial Assistance

Administration	632.60	
Loan Guarantee Write-Off	469,038.47	
P.E.I. Lending Authority	11,567.33	481,238.40

Information

Materials& Supplies	6,946.53	
Salaries	1,225.33	
Travel	666.22	8,838.08

Technical Upgrading

Administration	335.20	
Professional Services	8,511.72	
Travel Grant for Fishermen	20,913.68	29,760.60

Port Maintenance

Materials & Supplies	28,735.91	
Professional Contract Service	75.00	28,810.91

Resource Monitoring

Materials & Supplies	815.00	
Salaries	1,632.29	
Travel	691.04	3,138.33

Aquaculture Incentive		
Aquaculture Incentive Program	3,978.45	3,978.45
Fishing Industry Technology		
Materials & Supplies	3,693.75	3,693.75
Production Administration		
Salaries	1,658.25	
Travel	4,687.49	6,345.74
Test Production		
Materials & Supplies	8,915.75	
Professional Services	10,279.34	19,195.09
Lab & Test Kitchen		
Materials & Supplies	349.39	
Travel	1,497.53	1,846.92
Statistics		
Materials & Supplies	172.48	
Salaries	8,024.71	
Travel	132.66	8,329.85
Fresh Fish Market Assistance		
Fresh Fish Market Assistance Grant	3,616.29	3,616.29
Fleet Development		
Fleet Development Program	102,031.71	102,031.71
Vessel Construction		
Vessel Construction Program	111,404.80	111,404.80
Processing & Quality — Administration		
Salaries	23,954.36	
Travel	2,741.13	26,695.49
Professional Services		
Contract Services	6,732.26	6,732.26

Technology Improvement		
Equipment	106,680.03	
Materials & Supplies	7,359.77	113,039.80
Quality Enhancement		
Materials & Supplies	41.33	
Salaries	2,004.24	
Travel	877.58	2,923.15
Seaweed Market Stabilization		
Seaweed Market Stabilization Program	70,939.76	70,939.76
DEPARTMENT TOTAL EXPENDITURE		$4,998,092.12